

**WASHINGTON STATE DEPARTMENT OF HEALTH  
OFFICE OF FOOD SAFETY AND SHELLFISH PROGRAMS**

**ANNUAL GROWING AREA REVIEW**

**PREPARED BY:** Donald J. Melvin, Environmental Specialist

**AREA:** North Bay

**YEAR ENDING:** December 31, 2005

**CLASSIFICATION:** Approved, Prohibited

**ACTIVITIES IN THE GROWING AREA IN 2005:**

Samples were collected monthly from North Bay. The Conditionally Approved area was upgraded to Approved in 2005. The "approved" area was closed for 7 days due to extreme rainfall conditions. Mason County is continuing pollution source investigations in the area.

**ANALYTICAL RESULTS OF WATER SAMPLES:**

Table #1 summarizes the most recent 30 samples collected from each of the North Bay sampling stations. All Approved area stations pass the NSSP Approved water quality standard. Sampling stations #1, #7, and #575 are threatened and stations #11 and #12 are of concern due to elevated bacteria levels. Individual sample results for stations #1, #7, and #575 are shown in Tables 2, 3, and 4 respectively.

**CHANGE IN ACTUAL POLLUTION SOURCES THAT IMPACT THE GROWING AREA:**

We currently have no information indicating that the area has new sources of pollution.

**CLASSIFICATION STATUS:**

- ☐ Well within the classification standards
- ☐ Meets standards but some concerns
- ☒ Meets standards but threatened with a downgrade in classification
- ☐ Fails to meet classification standards

**REMARKS AND RECOMMENDATIONS:**

North Bay is on the 303d list for fecal coliform.

# TABLE 1

## SUMMARY OF MARINE WATER DATA (SRS)

Growing Area: **NORTH BAY**

Classification: **Unclassified,Approved,Prohibited**

From **06/04/2003** To **12/14/2005**

### FECAL COLIFORM ORGANISMS/100 ML

Station Number	Classification	Number of Samples	Range	Geometric Mean	Est. 90th Percentile	Meets Std.
1	Approved	31	1.7 - 170.0	6.1	34.0	Yes
2	Approved	31	1.7 - 49.0	4.0	16.0	Yes
3	Approved	30	1.7 - 23.0	3.1	9.0	Yes
4	Approved	31	1.7 - 13.0	2.7	6.0	Yes
5	Approved	30	1.7 - 33.0	2.7	6.0	Yes
6	Approved	31	1.7 - 70.0	3.4	13.0	Yes
7	Approved	31	1.7 - 110.0	6.9	34.0	Yes
11	Approved	31	1.7 - 130.0	6.1	26.0	Yes
12	Approved	31	1.7 - 79.0	5.3	26.0	Yes
14	Approved	31	1.7 - 33.0	3.5	10.0	Yes
15	Approved	31	1.7 - 23.0	3.5	11.0	Yes
16	Approved	31	1.7 - 79.0	3.0	10.0	Yes
548	Approved	31	1.7 - 33.0	4.7	17.0	Yes
551	Approved	31	1.7 - 70.0	2.8	8.0	Yes
552	Approved	31	1.7 - 22.0	2.7	7.0	Yes
553	Approved	31	1.7 - 23.0	2.7	6.0	Yes
575	Approved	31	1.7 - 79.0	7.2	33.0	Yes
9	Prohibited	31	1.7 - 79.0	6.5	31.0	Yes
549	Prohibited	31	1.7 - 79.0	10.1	41.0	Yes
550	Prohibited	31	1.7 - 79.0	9.8	49.0	No

All tides information is presented

The standard for approved shellfish growing waters is fecal coliform geometric mean not greater than 14 organisms/100 ml and an estimate of the 90th percentile not greater than 43 organisms/100 ml. The above table shows bacteriological results in relation to program standards.

\* N/A - SRS criteria require a minimum of 30 samples from each station. \*

**TABLE 2**

**SUMMARY OF SHELLFISH GROWING AREAS  
WATER QUALITY STUDY RESULTS**

Growing Area: **NORTH BAY**

Sampling Station Number: **1**

Classification: **Approved**

<b>Sample Date</b>	<b>Sample Time</b>	<b>Tide</b>	<b>Fcoli/100ml</b>	<b>Temperature</b>	<b>Salinity</b>
06/04/2003	09:34	Ebb	4.5	14	28
07/09/2003	13:21	Flood	2	23	25
08/05/2003	10:37	Flood	13	20	26
09/03/2003	13:49	Ebb	2	18	30
10/28/2003	09:50	Ebb	170	13	26
11/04/2003	12:30	Flood	1.7	10	25
12/04/2003	11:40	Flood	6.8	7	23
01/08/2004	10:20	Ebb	4.5	5	18
02/11/2004	11:56	Ebb	1.7	6	25
03/09/2004	09:44	Ebb	2	8	20
04/07/2004	10:27	Ebb	1.7	11	24
05/06/2004	08:57	Ebb	2	14	25
06/24/2004	09:37	Flood	7.8	18	26
07/21/2004	08:29	Flood	13	21	25
08/18/2004	08:40	Ebb	33	21	17
09/09/2004	15:24	Flood	2	18	28
10/21/2004	13:29	Flood	7.8	14	26
11/01/2004	11:16	Ebb	4.5	11	24
12/01/2004	10:53	Ebb	1.7	9	20
01/19/2005	12:08	Flood	33	8	0
02/02/2005	11:45	Ebb	1.7	8	18
03/30/2005	10:25	Ebb	1.7	11	17
04/12/2005	09:10	Ebb	2	10	20
05/11/2005	08:46	Ebb	33	13	17
06/27/2005	09:03	Flood	7.8	17	25
07/25/2005	09:46	Ebb	110	17	24
08/23/2005	11:07	Ebb	13	18	28
09/21/2005	09:41	Ebb	7.8	16	30
10/19/2005	10:36	Ebb	1.7	14	28
11/17/2005	10:15	Ebb	49	10	26
12/14/2005	10:05	Ebb	7.8	7	20

**Number of Samples: 31**

**Geometric Mean: 6.1**

**Range: 1.7 - 170**

**Estimated 90th Percentile: 34**

**TABLE 3**

**SUMMARY OF SHELLFISH GROWING AREAS  
WATER QUALITY STUDY RESULTS**

Growing Area: **NORTH BAY**

Sampling Station Number: **7**

Classification: **Approved**

<b>Sample Date</b>	<b>Sample Time</b>	<b>Tide</b>	<b>Fcoli/100ml</b>	<b>Temperature</b>	<b>Salinity</b>
06/04/2003	09:25	Ebb	2	14	28
07/09/2003	13:23	Flood	4.5	22	21
08/05/2003	10:35	Flood	7.8	20	25
09/03/2003	13:53	Ebb	33	19	29
10/28/2003	09:53	Ebb	23	13	26
11/04/2003	12:31	Flood	1.7	10	25
12/04/2003	11:43	Flood	1.7	8	20
01/08/2004	10:17	Ebb	13	5	10
02/11/2004	11:59	Ebb	1.7	6	21
03/09/2004	09:42	Ebb	4.5	8	21
04/07/2004	10:29	Ebb	6.8	11	25
05/06/2004	08:55	Ebb	4.5	14	25
06/24/2004	09:35	Flood	4.5	18	24
07/21/2004	08:25	Flood	33	21	24
08/18/2004	08:37	Ebb	17	21	25
09/09/2004	15:27	Flood	7.8	18	28
10/21/2004	13:32	Flood	1.7	13	25
11/01/2004	11:18	Ebb	33	11	24
12/01/2004	10:56	Ebb	1.8	9	10
01/19/2005	12:10	Flood	110	8	0
02/02/2005	11:46	Ebb	1.7	8	20
03/30/2005	10:27	Ebb	2	10	20
04/12/2005	09:08	Ebb	2	9	20
05/11/2005	08:44	Ebb	70	12	11
06/27/2005	09:01	Flood	2	17	26
07/25/2005	09:45	Ebb	17	17	25
08/23/2005	11:04	Ebb	13	18	26
09/21/2005	09:38	Ebb	4.5	15	29
10/19/2005	10:34	Ebb	49	14	29
11/17/2005	10:12	Ebb	7.8	10	28
12/14/2005	10:01	Ebb	4	7	22

**Number of Samples: 31**

**Geometric Mean: 6.9**

**Range: 1.7 - 110**

**Estimated 90th Percentile: 34**

**TABLE 4**

**SUMMARY OF SHELLFISH GROWING AREAS  
WATER QUALITY STUDY RESULTS**

Growing Area: **NORTH BAY**

Sampling Station Number: **575**

Classification: **Approved**

<b>Sample Date</b>	<b>Sample Time</b>	<b>Tide</b>	<b>Fcoli/100ml</b>	<b>Temperature</b>	<b>Salinity</b>
06/04/2003	09:52	Ebb	11	14	24
07/09/2003	13:13	Flood	2	21	25
08/05/2003	10:50	Flood	4	20	30
09/03/2003	13:35	Ebb	1.7	19	29
10/28/2003	09:40	Ebb	11	13	24
11/04/2003	12:22	Flood	4	9	11
12/04/2003	11:32	Flood	4.5	8	5
01/08/2004	10:32	Ebb	46	5	0
02/11/2004	11:48	Ebb	1.7	6	25
03/09/2004	09:51	Ebb	2	8	18
04/07/2004	10:19	Ebb	33	11	9
05/06/2004	09:04	Ebb	11	14	25
06/24/2004	09:43	Flood	79	17	7
07/21/2004	08:38	Flood	33	19	1
08/18/2004	08:48	Ebb	27	21	16
09/09/2004	15:15	Flood	4.5	18	29
10/21/2004	13:15	Flood	2	14	5
11/01/2004	11:07	Ebb	17	9	7
12/01/2004	10:32	Ebb	2	8	14
01/19/2005	12:01	Flood	22	7	0
02/02/2005	11:35	Ebb	1.7	8	17
03/30/2005	10:14	Ebb	17	9	2
04/12/2005	09:18	Ebb	4.5	10	4
05/11/2005	08:53	Ebb	31	12	2
06/27/2005	09:11	Flood	33	16	18
07/25/2005	09:57	Ebb	2	17	27
08/23/2005	11:20	Ebb	7.8	18	25
09/21/2005	09:56	Ebb	13	14	4
10/19/2005	10:50	Ebb	7.8	13	27
11/17/2005	10:28	Ebb	2	10	22
12/14/2005	10:17	Ebb	1.7	7	20

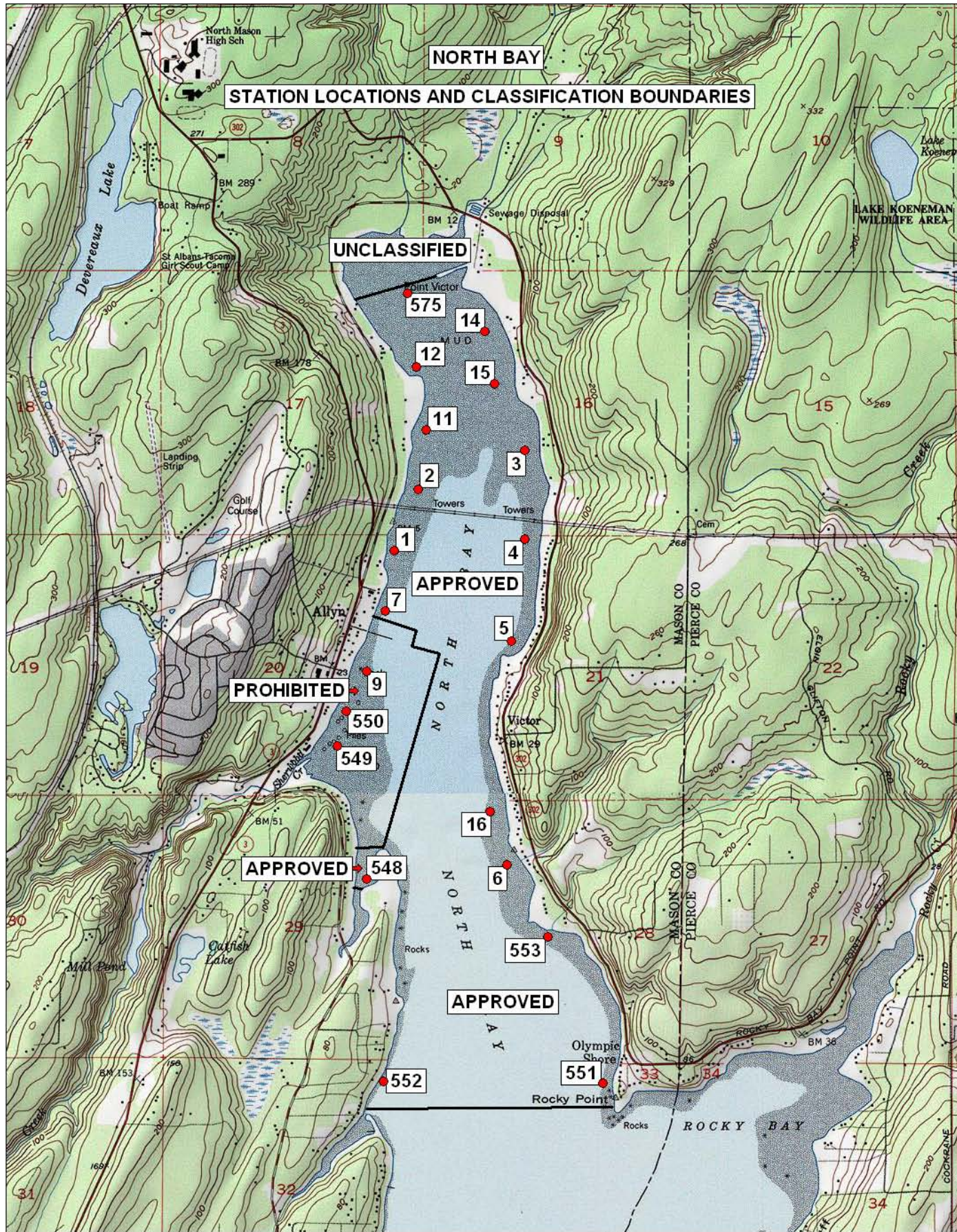
**Number of Samples: 31**

**Geometric Mean: 7.2**

**Range: 1.7 - 79**

**Estimated 90th Percentile: 33**



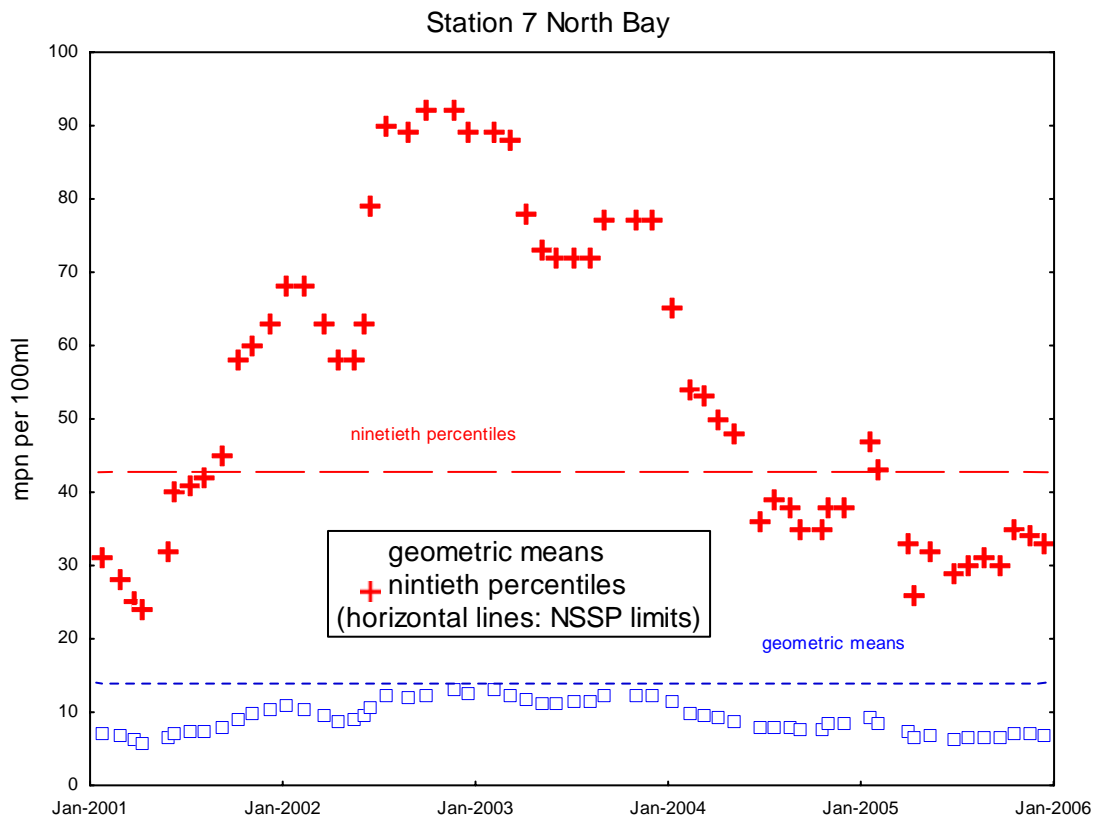
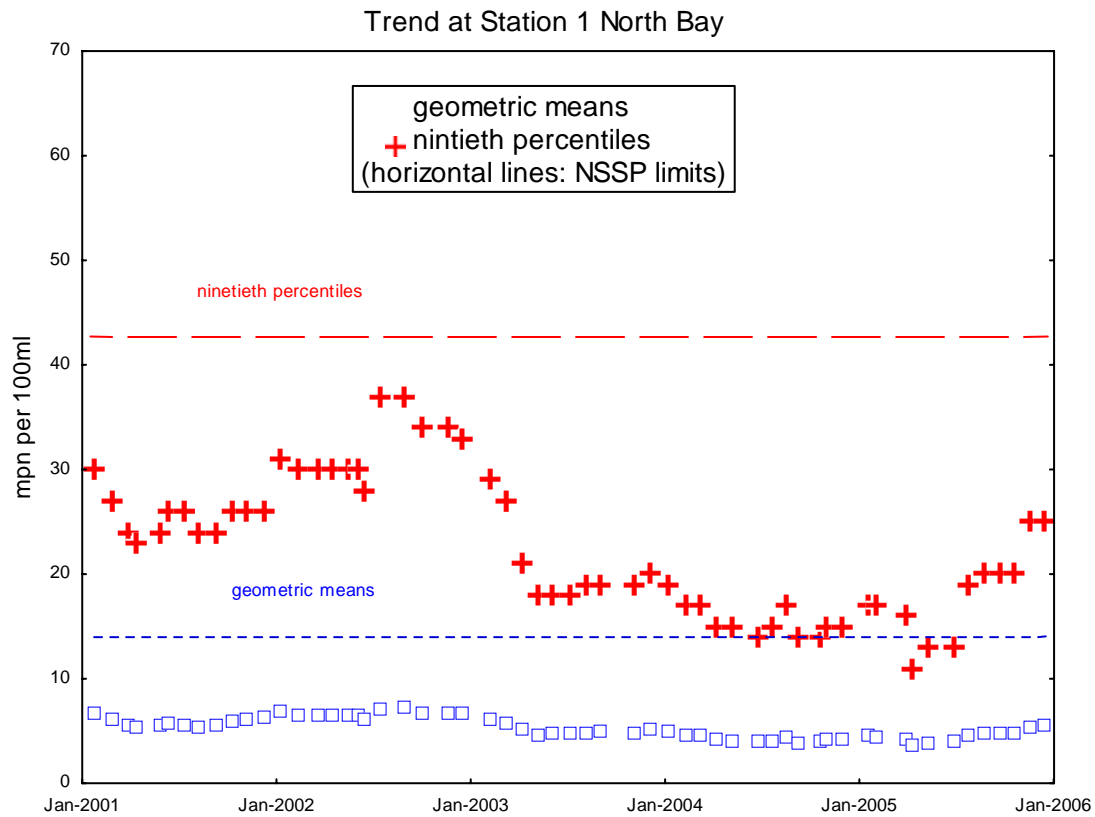


TN / MN  
18°

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## Most recent five-year trend in fecal coliform pollution.



Trend at Station 575 North Bay

